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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,188	09/26/2003	Steven T. Charles	1946	9843

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EXAMINER

BOUCHELLE, LAURA A

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 05/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b> 10/672,188	<b>Applicant(s)</b> CHARLES, STEVEN T.	
	<b>Examiner</b> Laura A. Bouchelle	<b>Art Unit</b> 3763	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 February 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-14 is/are pending in the application.
- 4a) Of the above claim(s) 2 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| <p>1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)</p> <p>2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)</p> <p>3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br/>Paper No(s)/Mail Date _____.</p> | <p>4) <input type="checkbox"/> Interview Summary (PTO-413)<br/>Paper No(s)/Mail Date. _____.</p> <p>5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)</p> <p>6) <input type="checkbox"/> Other: _____.</p> |
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**DETAILED ACTION**

***Response to Amendment***

***Claim Rejections - 35 USC § 103***

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
2. Claims 1, 3, 5, 6, 7, 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al. (US 3661144) in view of Dishler (US 6135 984) in further view of Kadan (US 6149654).
3. Jensen discloses a suction apparatus comprising a handle device 1 coupled to a curved cannula 2 (Col. 1, lines 31-37), a side port 17 (Col. 2, line 59), and a second port 16 disposed sufficiently away from side port 17 (Col. 2, lines 60-61). See Figs. 1, 2, 5 and 6.
4. Regarding claim 3, Jensen et al discloses that the side port 17 is recessed from the exterior surface of the curved portion of the cannula 2. See Figs. 1, 5 and 6.
5. Regarding claim 5, Jensen et al discloses said curved portion comprising a closed tip 9 having a smooth, convex surface (Col. 1, lines 29-30). See Figs. 1, 2, 5 and 6.

6. Regarding claim 6, Jensen et al discloses said curved portion having a smooth ventral surface. See Fig. 5.

7. Regarding claim 7, Jensen et al discloses said curved portion having a smooth dorsal surface. See Figs. 1 and 6.

8. Claims 1 and 14 differ from Jensen in calling for the side port to be disposed at an angle of about 90 degrees to the plane of curvature. Dishler teaches a cannula for use in eye surgery having side ports 40 disposed at an angle of about 90 degrees to the plane of curvature to allow for the movement of liquid with the least amount of pressure change within the eye (Col. 8, lines 40-55). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the device of Jensen to have ports disposed at an angle of about 90 degrees to the plane of curvature as taught by Dishler to allow for the movement of liquid with the least amount of pressure change within the eye.

9. Claim 1 further differs from Jensen et al in view of Dishler in calling for a first flexible tubing fluidly coupled to side port and vacuum source, a second flexible tubing fluidly coupled to second port and vacuum source, and a valve on the handle. Kadan discloses a first and second flexible tubing 26, 28 attached to the handle 10 and valves 12, 14 (Col. 6, lines 48-51 and 56-59). See Fig. 1. Kadan further discloses that the valve allows material to be suctioned away from the body to the collection canister (Col. 8, lines 30-33). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the suction apparatus disclosed by

Jensen et al with the flexible tubing and valves as taught by Kadan so that the suction of the device can be controlled by the operator.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al in view of Dishler in view of Kadan as applied to claim 1 above, and further in view of Cucin (US 5795323). The claim differs from the teachings above in calling for a raised ridge surrounding at least a portion of the periphery of the side port. Cucin discloses a cannula 5 with projections 7A, 7B, 7C above aspiration aperture 8A, 8B, 8C (Col. 6, lines 62-65) forming a raised ridge around the periphery of the aspiration opening 9. See Figs. 2A and 2C. These projections or ridges allow tissue to be aspirated through the apertures 8A, 8B, 8C to a reservoir device associated with a vacuum source (Col. 7, lines 24-27). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to add ridges to the periphery of the side port disclosed in Jensen et al as taught by Cucin to allow material to be aspirated through the cannula.

11. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al in view of Dishler in view of Kadan as applied to claim 1 above, in further view of Cohen (US 3439675). The claim differs from the teachings above in calling for the curved portion to be made of flexible plastic having a smooth surface. Cohen discloses an ophthalmic needle comprising a cannula made of any variety of plastic capable of being manually bent (Col. 2, lines 67-69). It would have been obvious to one of ordinary skill in the art at the time of invention to fashion the cannula disclosed by Jensen et al out of a flexible plastic as disclosed by Cohen so that it would be safe to use in the eye.

12. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen in view of Dishler in view of Kadan as applied to claim 1 above, and further in view of Rowe (US 5246436) in further view of McGaffigan (US 6193714). The claim differs from the teachings above in calling for an optical fiber to be disposed in the handle and curved portion, and the curved portion to be capable of transmitting light from the optical fiber. Rowe discloses a probe 18 comprising a cannula 40 with an optical fiber 30 extending through it (Col. 4, lines 59-61). See Fig. 2. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the cannula disclosed by Jensen et al to contain a optical fiber as taught by Rowe to allow the surgeon to view the eye under a microscope as he cuts and aspirates away the vitreous.

13. Claim 9 further differs from the above teaching in calling for the curved portion to be capable of transmitting light. McGaffigan discloses a medical probe wherein the distal end 51 is made of transparent material (Col. 6, lines 22-24). See Figs. 3 and 4. The disclosed probe has an adapter 69 to be connected to a suitable light source (Col. 5, lines 22-24) such as the optical fiber taught by Rowe. Therefore it would have been obvious to one of ordinary skill in the art at the time of invention to make the distal end of the cannula containing an optical fiber as taught above of a transparent material as taught by McGaffigan.

14. Claim 10 differs from Jensen et al in view of Dishler in view of Kadan in view of Rowe in calling for the curved portion to be made of light transmitting plastic. McGaffigan discloses that the transparent distal end be made of a material having sufficiently high luminous transmittance such as a transparent polymer including a variety of different plastics (Col. 7, lines

23-28). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to fashion the curved cannula in Jensen et al out of a light transmitting plastic material as taught by McGaffigan so that the light from the optical fiber contained within the cannula can illuminate the surface on which the surgeon is operating.

15. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al in view of Dishler in view of Kadan in view of Rowe in further view of McGaffigan as applied to claims 9 and 10 above, and further in view of Edwards et al (US 6325798). The claim differs from the previous teaching in calling for the curved portion to comprise a window made from light transmitting plastic. Edwards et al discloses a catheter tube 30 where any portion can be made from a transparent material so that the physician can visualize at any location along the length of the catheter (Col. 33, lines 1-2 and 7-10). See Fig. 3. A window on the curved portion is inherently included in Edwards's disclosure of a portion anywhere along the length of the catheter. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the above taught device with a window made of light transmitting plastic as taught by Edwards et al.

16. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al in view of Dishler in view of Kadan in view of Holzer (US 5242386). The claim differs from Jensen et al in calling for a second side port, wherein the side port and the second side port are fluidly coupled. Holzer discloses a suction tube 30 having two side ports 34 (Col. 2, lines 40-44) wherein the two side ports are fluidly coupled. See Fig. 2. Holzer further discloses that the

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position of the two side ports allows for unobstructed removal of material from the body (Col. 3, lines 28-31). Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the cannula disclosed by Jensen et al to include a second side port fluidly coupled to the first side port as taught by Holzer to provide unobstructed suction to the area on which the surgeon is operating.

17. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jensen et al in view of Dishler (US 6135984) in view of Kadan. The claim differs from Jensen et al in calling for the curved portion to have a radius of curvature substantially equal to a radius of curvature of a human eye. Dishler discloses a curved prong element 50 being used on the cornea 72 of an eye 70 (Col. 9, lines 29-32). See Fig. 4. It is clear from the figure that the radius of curvature of the device is substantially equal to that of the radius of curvature of the human eye. It would have been obvious to one of ordinary skill in the art at the time of invention to modify the device disclosed by Jensen et al to have a radius of curvature similar to that of the human eye as taught by Dishler so that it could be used easily to operate on the human eye.

#### ***Response to Arguments***

18. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.



***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Bouchelle whose telephone number is 571-272-2125. The examiner can normally be reached on Monday-Friday 8-4.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nicholas Lucchesi can be reached on 517-272-4977. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Laura A Bouchelle  
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